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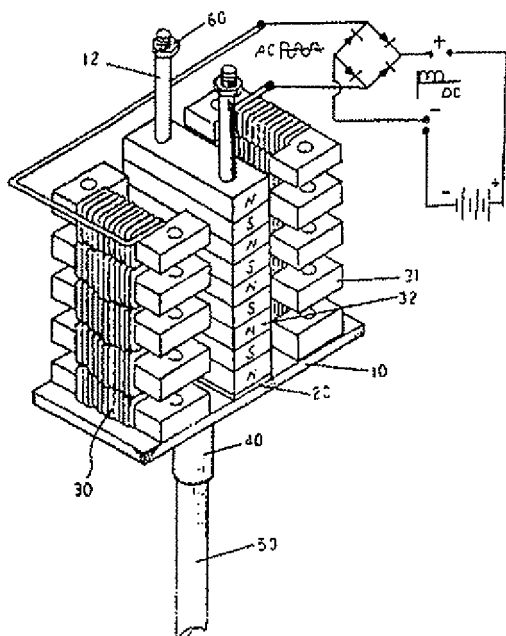
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**None**

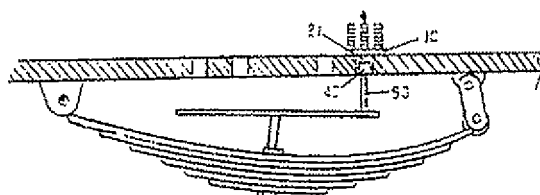
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UK CL (Edition N ) **H2A AKRR AKR7 AKR8 AKR9**  
INT CL<sup>6</sup> **F03G 3/00 7/08 , H02K 7/18 35/02 35/04**

**(54) Oscillating generator**

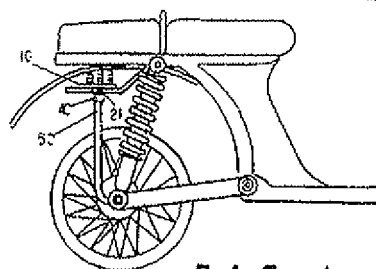
(57) A supplementary power supply for motor vehicles including a base 10 having two upright rods 12, an oscillating seat 20 having two holes adapted to receive the two upright rods of the base and a rod portion depending downwardly and adapted to go through a hole of the base, a plurality of permanent magnets 32 arranged on the oscillating seat 20, a first set of solenoids fixedly mounted at an end of the base, a second set of solenoids fixedly mounted another end of the base, a sleeve 40 threadedly engaged with the rod portion and a connecting rod 50 threadedly engaged with the sleeve.



**FIG. 2**



**FIG. 3**



**FIG. 4**

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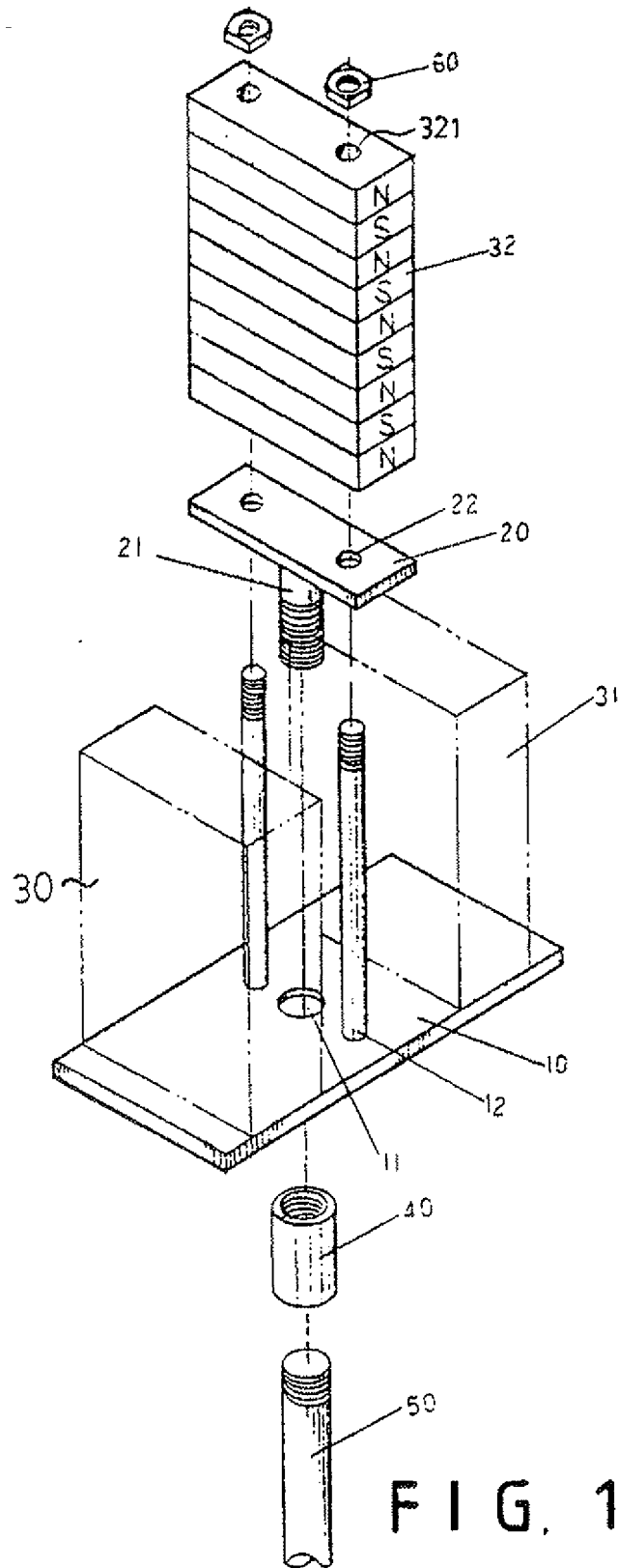


FIG. 1

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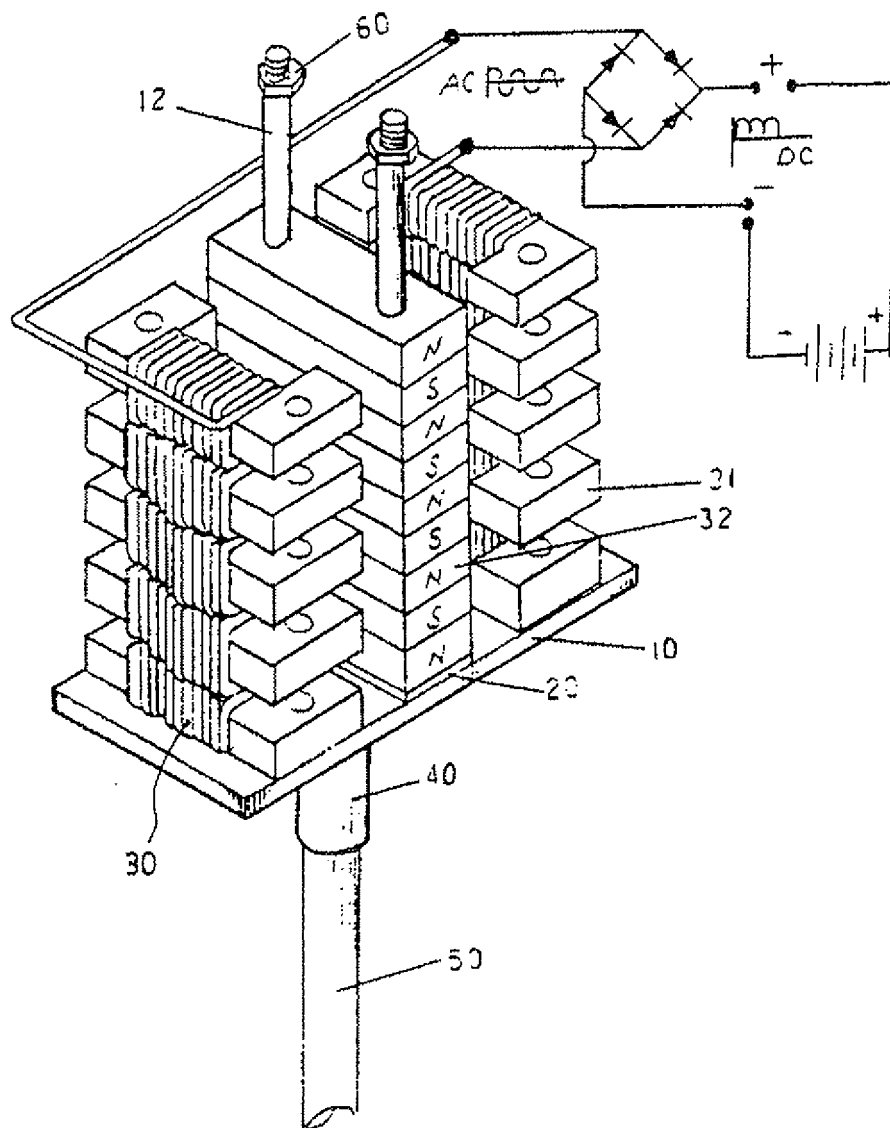


FIG. 2

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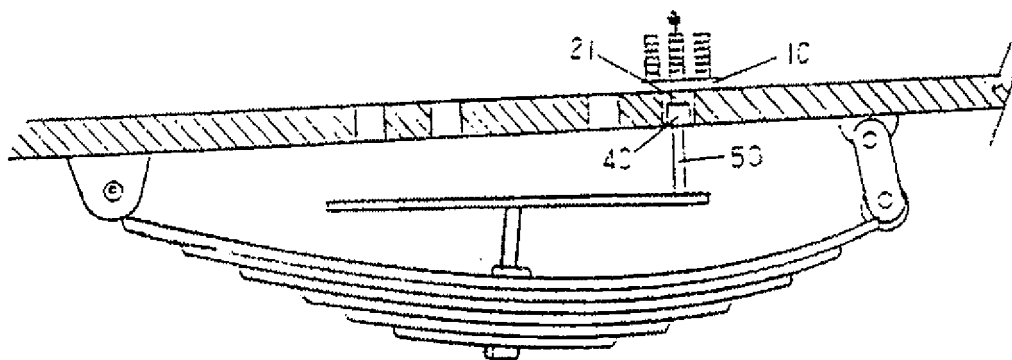


FIG. 3

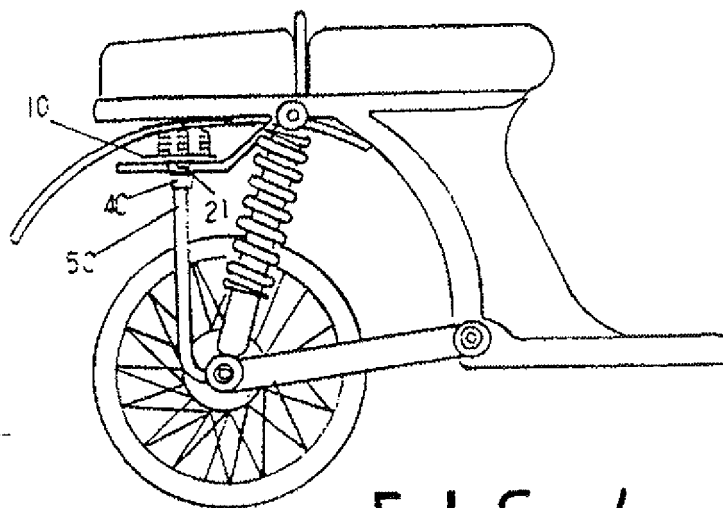


FIG. 4

TITLE: A SUPPLEMENTARY POWER SUPPLY FOR A MOTOR VEHICLE

This invention relates to a supplementary power supply for a motor vehicle.

1. Field of the Invention

5 This invention relates to a supplementary power supply for a motor vehicle and in particular to one which can generate electric power to charge the batteries during the travel of the motor vehicle.

2. Description of the Prior Art

10 It has been found that the energy absorbed by the shock spring of a motor vehicle is wasted and no body has ever suggested the utilization thereof.

Therefore, it is an object of the present invention to provide a supplementary power supply for a motor  
15 vehicle which converts the mechanical energy absorbed by the shock spring into electric power.

This invention relates to a supplementary power supply for a motor vehicle.

It is the primary object of the present invention to  
20 provide a supplementary power supply for a motor vehicle

which converts the mechanical energy absorbed by the shock spring into electric power.

It is another object of the present invention to provide a supplementary power supply for a motor vehicle  
5 which is practical in use.

It is still another object of the present invention to provide a supplementary power supply for a motor vehicle which is simple in construction.

It is still another object of the present invention  
10 to provide a supplementary power supply for a motor vehicle which is easy to manufacture.

It is a further object of the present invention to provide a supplementary power supply for a motor vehicle which is low in cost.

15 Other objects of the invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists of features of constructions and method, combination of elements, arrangement of parts and steps of the method which will be  
20 exemplified in the constructions and method hereinafter

disclosed, the scope of the application of which will be indicated in the claims following.

FIG. 1 is an exploded view of the present invention;

FIG. 2 is a perspective view of the present  
5 invention;

FIG. 3 illustrates a first application of the present invention; and

FIG. 4 illustrates a second application of the present invention.

10 For the purpose of promoting an understanding of the principles of the invention, reference will now be made to the embodiment illustrated in the drawings. Specific language will be used to describe same. It will, nevertheless, be understood that no limitation of the  
15 scope of the invention is thereby intended, such alternations and further modifications in the illustrated device, and such further applications of the principles of the invention as illustrated herein being contemplated as would normally occur to one skilled in the art to which  
20 the invention relates.

With reference to the drawings and in particular to FIGS. 1 and 2 thereof, the supplementary power supply for a motor vehicle according to the present invention mainly comprises a base 10, an oscillating seat 20, a first set  
5 of solenoids 30, a second set of solenoids 31, a plurality of permanent magnets 32, a sleeve 40, a connecting rod 50, and two nuts 60.

The base 10 is a rectangular member formed at the center with a hole 11 and has two rods 12 vertically  
10 mounted thereon.

The first set of solenoids 30 are mounted on one end of the base 10, while the second set of solenoids 31 are mounted on the other end of the base 10.

The oscillating seat 20 is provided with an  
15 externally threaded rod portion 21 depending downwardly from the bottom thereof and two through holes 22 one at a side thereof. The oscillating seat 20 is arranged on the base 10, with the rods 12 of the base 10 extending upwardly through the holes 22 of the oscillating seat 20  
20 and the rod portion 21 of the oscillating seat 20



extending downwardly through the hole 11 of the base 10.

The permanent magnets 32 are each formed with two holes 321 and are mounted on the oscillating seat 20, with the rods 12 of the base 10 extending upwardly through the  
5 holes 321 to engage with the nuts 60.

The sleeve 40 is threadedly engaged with the rod portion 21 of the oscillating seat 20.

The connecting rod 50 is threadedly engaged with the sleeve 40.

10 Hence, when the connecting rod 50 is moved up and down, the permanent magnets 32 will be moved up and down therewith hence making the lines of force cut through the solenoids 30 and 31 and therefore generating electric current flows through the solenoids 30 and 31. Then, the  
15 electric current flows will be converted into direct current flows by the rectifying current which will in turn charge the batteries.

The first set of solenoids 30 is connected with an end of a rectifying circuit which is in turned connected  
20 with batteries for a vehicle. The second set of solenoids

31 is connected with another end of the rectifying circuit.

As shown in FIGS. 3 and 4, the connecting rod 50 of the present invention is mounted on the shock spring so that during the travel of the motor vehicles, the connecting rod 50 will be moved up and down thereby causing the solenoids 30 and 31 to generate electric current flows.

The invention is naturally not limited in any sense to the particular features specified in the forgoing or to the details of the particular embodiment which has been chosen in order to illustrate the invention.

Consideration can be given to all kinds of variants of the particular embodiment which has been described by way of example and of its constituent elements without thereby departing from the scope of the invention. This invention accordingly includes all the means constituting technical equivalents of the means described as well as their combinations.

## CLAIMS:

1. A supplementary power supply for motor vehicles comprising:

5           a base having a first hole and two upright rods;  
          an oscillating seat having two second holes adapted to receive the two upright rods of said base and a rod portion depending downwardly from a bottom and adapted to go through the hole of said base;

          a plurality of permanent magnets arranged on said  
10 oscillating seat and having two third holes receiving the upright rods of said base;

          two nuts engaged with upper ends of said upright rods;

          a first set of solenoids fixedly mounted at an end  
15 of said base;

          a second set of solenoids fixedly mounted another end of said base;

          a sleeve threadedly engaged with the rod portion of said oscillating seat; and

20           a connecting rod threadedly engaged with said sleeve.